REMARKS

This Amendment is fully responsive to the non-final Office Action dated March 17, 2008, issued in connection with the above-identified application. Claims 1, 3-10 and 12-18 are all the claims pending in the present application. With this Amendment, claims 1 and 10 have been amended. No new matter has been introduced by the amendments made to the claims. Thus, reconsideration is respectfully requested.

In the Office Action, claims 1, 3-10, and 12-18 have been rejected under 35 U.S.C. 102(e) as being anticipated by Orr (U.S. Patent No. 6,760,535, hereafter "Orr"). The Applicants have amended independent claims 1 and 10 to help further distinguish the present invention from the cited prior art. For example, as amended, claim 1 recites the following features that are not believed to be disclosed or suggested by the cited prior art:

"[a] recording apparatus comprising:

a continuous recording unit operable to, with use of a recording medium as a ring buffer, realized continuous recording of broadcast content;

a receiving unit operable to receive a specification on a period of time within the broadcast content, wherein said receiving unit displays a menu in which the current time is associated with a time N hours ago prior to the current time, and a retention of a broadcast content after the end of a broadcasting is based on the received specification on the period of time via the menu; and

a setting unit operable to set a protective attribute onto a part of the recording medium corresponding to the period of time, wherein the broadcast content is made up of a plurality of video units, the continuous recording obtains the broadcast content broadcasted from N hours ago to the current time onto the recording medium by, each time a broadcast is received and a new video unit is generated from the received broadcast, overwriting the ring buffer with the generated video unit, and the part of the recording medium having the protective attribute is protected against the overwriting performed by said continuous recording unit; and

a pointer operable to indicate a location of writing in the recording medium, said continuous recording unit being operable to perform the overwriting to the ring buffer by

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irrespective of whether the ring buffer has been viewed by a user or not, (i) writing the new video unit to the location of writing indicated by said pointer, and (ii) subsequently adding a size of the new video unit to said pointer,

wherein the recording apparatus is operable to protect against overwriting by adding an offset to said pointer when said pointer reaches a vicinity of the part having the protective attribute such that said pointer skips the part having the protective attribute."

The features noted above in claim 1 are similarly recited in independent claim 10. Additionally, the features noted above are fully supported by the Applicants' disclosure (see e.g., Figs. 8A to 8C and 9A to 9C).

The present invention, as recited in claim 1 and 10, is directed to performing continuous recording (commonly termed "24-hour recording) by using a random-access recording medium, such as a hard disk, as a ring buffer. The ring buffer stores, from among vast amounts of input data, the latest data in the recording medium (having limited storage capacity) by circulating a pointer which indicates a location of writing. With use of the recording medium as a ring buffer by the continuous recording unit, a plurality of broadcast programs corresponding to the time period between N hours ago and the current time are recorded on the recording medium. Thus, even if a user misses an opportunity to record a broadcast program, the program exists in the ring buffer on the recording medium without being overwritten until N hours of time elapse after the broadcast begins.

Additionally, a receiving unit receives a specification from the user on a period of time existing from N hours ago to the current time. Therefore, the user is still able to specify programs, which exist in the ring buffer on the recording medium without being overwritten even after the broadcast program has started, for storing the programs. With the continuous recording unit and receiving unit of the present invention (as recited in independent claims 1 and 10), even when the user is not able to program or operate the recording apparatus before a broadcast program starts, it is possible to retain a broadcast program as long as the broadcast program remains in the ring buffer without being overwritten.

For example, assume the case where 24 hours and 48 hours are set as N hours. In the ring

buffer on the recording medium, broadcast content broadcast from a day ago up to the current time and broadcast content broadcast from two days ago up to the current time are stored. Even if a business person comes back home after work and does not have enough time to set a timer for programming, he/she is still able to retain a desired broadcast program by setting the protective attribute to the recording medium that functions as the ring buffer, instead of setting a timer, if it is within a day or two days after the broadcast of the program. Thus, the present invention allows business people who usually come home late and have little private time to watch a lot of broadcast programs.

In the Office Action, the Examiner relies on Orr for disclosing or suggesting all the features recited in independent claims 1 and 10. However, Orr discloses generally a method and apparatus for cache management for a digital VCR archive, wherein an apparatus marks files within a content archive. Orr discloses a recording apparatus for archiving content that includes the use of a database. This database is designed to manage contents by using SHOW TAG, PROTECTED FIELD, and PLAY FIELD (see e.g., FIG 3) related to the content.

An archiving procedure is shown in Orr with reference to FIG. 4. In Fig. 4, first, whether the target content is already stored or not is judged (204). If target content is not stored, a check is made to determine if sufficient hard disk space is available (205). If sufficient hard disk space is available, the content is archived. If sufficient hard disk space is not available, a first SHOW in the content database 150 is selected (210). However, if the user has already seen the first SHOW, the next SHOW is selected (224). Contents that have already been watched and to which a PROTECTED FIELD has not been attached are written to DELETABLE SHOW (214, 216, and 218), and are then deleted (220). On the other hand, if the hard disk has enough disk space left, contents are archived (208).

In the Office Action, the Examiner relies on Orr at col. 6, lines 33-48 for disclosing all the features of the receiving unit recited in claim 1 and 10. However, Orr at col. 6, lines 33-48 merely describes what is stored in the show tag 160 of the content database 150. As described in Orr, the show tag 160 of the content database 150 stores all the information received within the vertical blanking interval (VBI). Additionally, Orr discloses that the VBI may be replaced by a

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Web based EPG, DTV data packets, or other program information. Also, as described in Orr, the manufacturer of the recorder 10 can select a subset of the information, and set the recorder 10 to store only the selected portion of the information within the show tag 160. Thus, the user can either select a user determined subset of the VBI information, Web based EPG, DTV data packets, or other program information; or select the subset of the information on a program.

Based on the above discussion, although column 6 lines 33-48 of Orr describes a technique for selecting a portion of the received content and sets the protective attribute, there are at least three primary differences between Orr and the present invention (as recited in claims 1 and 10).

First, the targets for overwriting are different in Orr. In Orr, the targets for overwriting are selected from contents whose SHOW are registered in the content database 150. The target contents have already been watched, and the PROTECTED FIELD has not been attached to the target contents (214, 216, and 218 of FIG. 4). The contents which have already been watched and to which PROTECTED FIELD has not been attached are written to DELETABLE SHOW and are targeted for deletion (overwriting). However, contents which have not been watched are never targeted for overwriting (214, 216, and 218 of FIG 4).

On the other hand, in the present invention (as recited in claims 1 and 10) the continuous recording by the continuous recording unit receives a broadcast, generates a new video unit from the received broadcast, and overwrites the newly-generated video unit on the ring buffer. The continuous recording by the continuous recording unit overwrites what has been recorded regardless of whether it has been already watched or not, unless the protective attribute has been set.

Second, in Orr, the contents of the protective attributes are different. In Orr, the protective attributes are attached to exclude the contents from being added to DELETABLE SHOW and archives them (214, 216, and 218 of FIG 4). In Orr, the contents are not stored in the ring buffer and thus are not targeted for overwriting. Accordingly, the protective attributes in Orr are not considered equivalent to the protective attribute of the present invention (as recited in claims 1 and 10), which protects the contents from overwriting by the continuous recording

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unit. Therefore, the protective attributes in Orr not implemented for storage of the broadcast contents after the end of broadcasting.

Third, in Orr, the selectors of the protective attribute are different. According to column 6 lines 33-48 Orr the VBI information may be replaced with a Web based EPG, DTV data packets, or other program information, which can be selected by setting the recorder 10 to perform the selection. This setting is performed by the manufacturer, and not by the user.

Thus, although Orr selects a portion of program contents indicated by some information, the subjects of the selected protective attributes, and selectors of the protective attribute are different. Thus, Orr cannot be considered to disclose all the features of the receiving unit and step, recited respectively in claims 1 and 10.

Based on the above discussion, independent claims 1 and 10 are not anticipated or rendered obvious over Orr. Additionally, dependent claims 3-9 and 12-18 are not anticipated or rendered obvious by Orr at least by virtue by their respective dependency from independent claims 1 and 10.

In light of the above, the Applicants respectfully submit that all the pending claims are patentable over the prior art of record. Additionally, the Applicants respectfully request that the Examiner withdraw the rejections presented in the Office Action dated March 17, 2008, and pass this application to issue. The Examiner is invited to contact the undersigned attorney by telephone to resolve any remaining issues.

Respectfully submitted,

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